

REMARKS

The Office Action of April 26, 2007 has been studied carefully. The Examiner is thanked for her thorough review of the claims and for her thoughtful suggestions for curing the noted informalities.

Turning to paragraph 1 of the Office Action, all of the Examiner's helpful suggestions have been followed save for the last suggestion made in conjunction with claim 53. Claim 53 now depends from claim 52. In claim 52, it is indicated that the target assembly is rotated around a fixed bubbler assembly. Claim 53 further limits claim 52 by indicating that the rotational speed of the target is varied during the measurement.

Turning to paragraph 3 of the Office Action, at claim 36, line 16, the reference to "measured transit time" has been changed to "the determined transit time" again in accordance with the Examiner's helpful suggestion. Further, in line 19 of claim 36, the "value" refers to the minimum thickness of the target and subportion (i) of claim 36 has been amended so that the phrase "extracting the value for" has been deleted and the word "determining" substituted therefor. Support for this amendment is abundant throughout the application and can be seen specifically in paragraph 8.

Applicant has further noted the Examiner's comments pertaining to the dependency of the claims, and the claims have been accordingly amended so that they now properly refer to antecedent independent or dependent claims.

Claim 50 has been rejected in light of the '850 Bouchard et al. patent under 35 USC §102(b). In this regard, it is noted that claim 50 requires that the movement of the target assembly relative to the source of sonic energy irradiation be asynchronously related to the frequency of the data acquisition. This is explained, for example, in paragraph [0034] of the application wherein it indicates that the speed of the target and the data acquisition frequency are asynchronous. In such manner, at the end of the data acquisition process, measurement points along the target surface are not characterized by fixed intervals or distances therebetween. As set forth in the specification, accordingly, a multiplicity of measurements are taken at pseudo-random data collection locations

along the target surface. This contrasts with the ordered pattern of data acquisition points referred to in Bouchard et al. '850. In this regard, the Examiner's kind attention is drawn to column 2, lines 45-55 of the '850 wherein the transducer 16 is moved successively to a series of 36 scanning positions arranged in a six by six matrix. At each position, the transducer irradiates the target 10 with a series of ultrasonic pulses. Accordingly, the '850 Bouchard et al. is not suggestive of the asynchronous relation between the movement of the sputter target assembly and source of sonic energy irradiation relative to data acquisition frequency. Accordingly, it is respectfully submitted that claim 50 is allowable over the '850 Bouchard et al. reference.

The Examiner's prompt indication of allowable subject matter in paragraph 6 is appreciated. It is respectfully submitted that claims 36-49 as now amended are allowable over the entire art of record.

With regard to paragraph 7 of the Office Action, new claim 56 has been entered and recites a combination of original claims 50 and 51. It is respectfully submitted that in accordance with paragraph 7 of the Office Action, new claim 56 should be allowable. Dependent claims 52-55 are, in one way or another, now dependent from new claim 56 and also should be deemed allowable.

The Examiner is invited to call the undersigned attorney if, during the course of reconsideration of this application, any question or comment should arise.

Respectfully submitted,

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